

Notice of Allowability

Application No.

09/640,466

Examiner

Wen-Tai Lin

Applicant(s)

FRENKEL ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 2/21/2006.
2. ☒ The allowed claim(s) is/are 11,14-16,26-28,33-47,51,53-55 and 57-64, renumbered as 1-34.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>5/05,12/05,1/06</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable, an amendment may be filed as provided by 37 C.F.R. 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.

2. Authorization for the examiner's amendment was given in a telephone interview with Mr. Christopher Brokaw, reg. no. 45620, on April 3, 2006.

3. In the claims:

(A) Please cancel claims 13, 17, 29-32, 48-50, 52 and 56.

(B) Please amend claims 11, 26-27 and 51 to the followings:

11. (Currently amended) An apparatus for retrieving and storing quality of service policy management information using a directory service, comprising:

a processor;

a network interface coupled to a managed network that receives network data from one or more network devices that are in the managed network; and

one or more sequences of stored instructions accessible to the processor and which, when executed by the processor, cause the processor to carry out the steps of:

receiving a validity period value of one of a plurality of directory information

trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value

stores information that defines a time period in which a sub-tree of a directory information tree, associated with the validity period value, is valid, and wherein a valid sub-tree cannot be updated or modified; providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information tree, and an old directory information tree value that references a formerly active directory information tree; when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree as indicated by the active directory information tree value of the directory information tree manager; [[and]] retrieving the quality of service policy management information from a sub-tree of the currently active directory information tree only during the time period within the validity period value thereof; providing a manager validity period value in the directory information tree manager; and retrieving the quality of service policy management information from the currently active directory information tree only during a time period indicated by the manager validity period value.

26. (Currently amended) An apparatus for retrieving and storing quality of service policy management information using a directory service, comprising:
means for receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a sub-tree of a directory information tree, associated with the validity period value, is valid, and wherein a valid sub-tree cannot be updated or modified;

- means for determining, when quality of service policy management information is needed, which one of the directory information trees is a currently active directory information tree;
- means for updating a particular sub-tree of the currently active directory information tree, when the particular sub-tree is not valid, without copying contents of the currently active directory information tree into another directory information tree in response to receiving a request to update policy management information stored in the currently active directory information tree; [[and]]
- means for retrieving the quality of service policy management information from a sub-tree of the currently active directory information tree only during the time period within the validity period value thereof;
- means for providing a manager validity period value in the directory information tree manager; and
- means for retrieving the quality of service policy management information from the currently active directory information tree only during a time period indicated by the manager validity period value.

27. (Currently amended) An apparatus for retrieving and storing quality of service policy management information using a directory service, comprising:

a processor;

a network interface coupled to a managed network that receives network data from one or more network devices that are in the managed network; and

one or more sequences of stored instructions accessible to the processor and which, when executed by the processor, cause the processor to carry out the steps of:

receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a sub-tree of a directory information tree, associated with the validity period value, is

valid, and wherein a valid sub-tree cannot be updated or modified;
determining, when quality of service policy management information is needed,
which one of the directory information trees is a currently active directory
information tree;
in response to receiving a request to update policy management information
stored in the currently active directory information tree, updating a
particular sub-tree of the currently active directory information tree, when
the particular sub-tree is not valid, without copying contents of the
currently active directory information tree into another directory
information tree; [[and]]
retrieving the quality of service policy management information from a sub-tree
of the currently active directory information tree only during the time
period within the validity period value thereof;
providing a manager validity period value in the directory information tree
manager; and
retrieving the quality of service policy management information from the
currently active directory information tree only during a time period
indicated by the manager validity period value.

51. (Currently amended) An apparatus for retrieving and storing quality of service policy management information using a directory service, comprising:
means for receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a sub-tree of a directory information tree, associated with the validity period value, is valid, and wherein a valid sub-tree cannot be updated or modified;
means for providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information

tree, and an old directory information tree value that references a formerly active directory information tree;

~~mean~~ means for, when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree as indicated by the active directory information tree value of the directory information tree manager; [[and]]

~~mean~~ means for retrieving the quality of service policy management information from a sub-tree of the currently active directory information tree only during the time period within the validity period value thereof;

means for providing a manager validity period value in the directory information tree manager; and

means for retrieving the quality of service policy management information from the currently active directory information tree only during a time period indicated by the manager validity period value.

(C) Please add the following new claims 57-64:

57. (New) A method for retrieving and storing quality of service policy management information using a directory service, comprising:

receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a sub-tree of a directory information tree, associated with the validity period value, is valid, and wherein a valid sub-tree cannot be updated or modified;

providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information tree, and an old directory information tree value that references a formerly active directory information tree;

when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree as indicated by the active directory information tree value of the directory information tree manager;

retrieving the quality of service policy management information from a sub-tree of the currently active directory information tree only during the time period within the validity period value thereof;

providing a manager validity period value in the directory information tree manager; and

retrieving the quality of service policy management information from the currently active directory information tree only during a time period indicated by the manager validity period value.

58. (New) The method of Claim 57, further comprising:

providing a unique name value and a creation time value in each directory information tree; and

retrieving the quality of service policy information from a directory information tree only when its creation time value is unchanged since a previous retrieval from that directory information tree.

59. (New) The method of Claim 57, further comprising:

after retrieving the quality of service policy information,

(a) determining whether the current directory information tree is still valid based on its validation period value;

(b) determining whether the current directory information tree has changed based on its name value; and

(c) if either determination (a) or (b) is true, then deleting the retrieved quality of service policy information and restarting retrieval of the quality of service policy

information.

60. (New) The method of Claim 57, further comprising:
creating and storing a sub-tree of one or more quality of service policies;
setting the sub-tree as inactive;
validating consistency and error checking the sub-tree; and
modifying an active job value of a job manager to reference the sub-tree.
61. (New) A computer-readable storage medium storing instructions, which when executed by one or more processors, cause:
receiving a validity period value of one of a plurality of directory information trees that are created and stored in the directory service in association with a directory information tree manager, wherein the validity period value stores information that defines a time period in which a sub-tree of a directory information tree, associated with the validity period value, is valid, and wherein a valid sub-tree cannot be updated or modified;
providing, in the directory information tree manager, an active directory information tree value that references a currently active directory information tree, and an old directory information tree value that references a formerly active directory information tree;
when quality of service policy management information is needed, determining which one of the directory information trees is a currently active directory information tree as indicated by the active directory information tree value of the directory information tree manager;
retrieving the quality of service policy management information from a sub-tree of the currently active directory information tree only during the time period within the validity period value thereof;
providing a manager validity period value in the directory information tree manager; and
retrieving the quality of service policy management information from the currently active directory information tree only during a time period indicated by the manager

validity period value.

62. (New) The computer-readable storage medium of Claim 61, wherein execution of the stored instructions by the one or more processors further causes:

providing a unique name value and a creation time value in each directory information tree; and

retrieving the quality of service policy information from a directory information tree only when its creation time value is unchanged since a previous retrieval from that directory information tree.

63. (New) The computer-readable storage medium of Claim 61, wherein execution of the stored instructions by the one or more processors further causes:

after retrieving the quality of service policy information,

(a) determining whether the current directory information tree is still valid based on its validation period value;

(b) determining whether the current directory information tree has changed based on its name value; and

(c) if either determination (a) or (b) is true, then deleting the retrieved quality of service policy information and restarting retrieval of the quality of service policy information.

64. (New) The computer-readable storage medium of Claim 61, wherein execution of the stored instructions by the one or more processors further causes:

creating and storing a sub-tree of one or more quality of service policies;

setting the sub-tree as inactive;

validating consistency and error checking the sub-tree; and

modifying an active job value of a job manager to reference the sub-tree.

4. In the Specification:

(i) At page 6, insert after line 18 – Fig. 5D is a flow diagram of a process of storing quality of service policy information in a directory. --.

(ii) At page 25, line 2, replace “Fig. 5C” with – Fig. 5D --.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

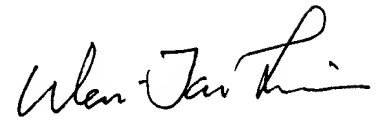
(571)273-8300 for official communications; and

(571)273-3969 for status inquires draft communication.

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Wen-Tai Lin

April 3, 2006


4/3/06